

Chapter 5: Tenor Physical Connections

The following shows the typical physical connections for the Tenor when used in specific applications (as shown back in Section I). There may be differences based on your individual application needs.

When shipped, or if the Tenor is restored to factory default, the Tenor will be in 'bypass' mode meaning that when connecting between the PBX and the PSTN, the Tenor will allow the two interfaces to pass transparently through the Tenor. The only downtime for voice services will be the time it takes to make the physical connections. Once these are made, the voice line should come up and normal voice services will be restored.¹

When making the connections from the PBX and PSTN interfaces, it is important to understand that the PBX interface on the Tenor is a DCE interface and the PSTN interface is a DTE interface. In communications, symmetry is required to establish and maintain a communications link. For example, a DTE interface connects to a DCE interface using a straight cable and vice-versa. If you need to connect like interfaces (DCE to DCE or DTE to DTE) then you will need to use a cable that crosses the transmit and receive wires between the two devices.

Enterprise Application:

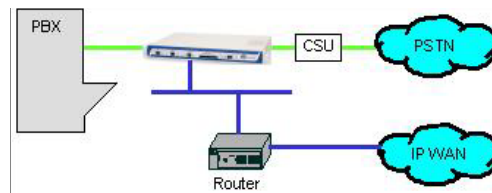


FIGURE III-7: ENTERPRISE APPLICATION

Digital Tenor:

When installing for the Enterprise application (as shown above), and using a Digital Tenor, the typical connections are shown below:

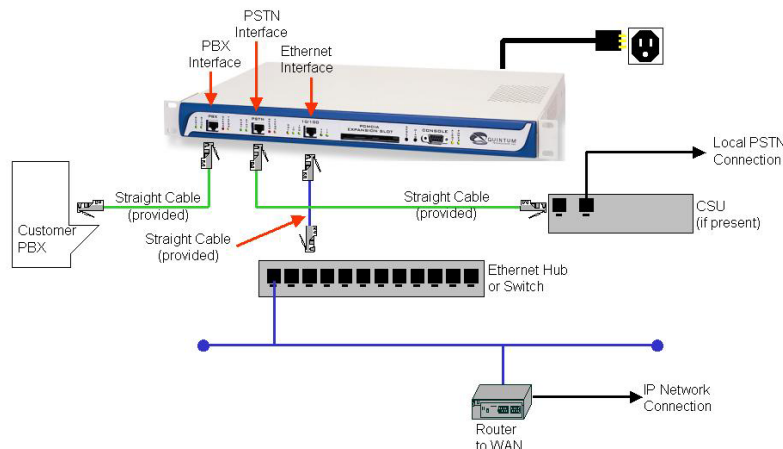


FIGURE III-8: DIGITAL TENOR CONNECTIONS

¹ This feature works only if both sides of the connection (PBX and PSTN) are similar configurations, such as both sides are T1 and E&M or T1 and ISDN, etc.

- Connect the T1 or E1 interface from the PBX to the Tenor's PBX interface using a RJ45 to RJ45 straight cable (provided).¹
- Connect the Tenor's PSTN interface to the CSU, if present, or directly to the PSTN using a RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using a RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.

Analog Tenor:

When installing an Analog Tenor for the Enterprise Application, the following connections are typical.

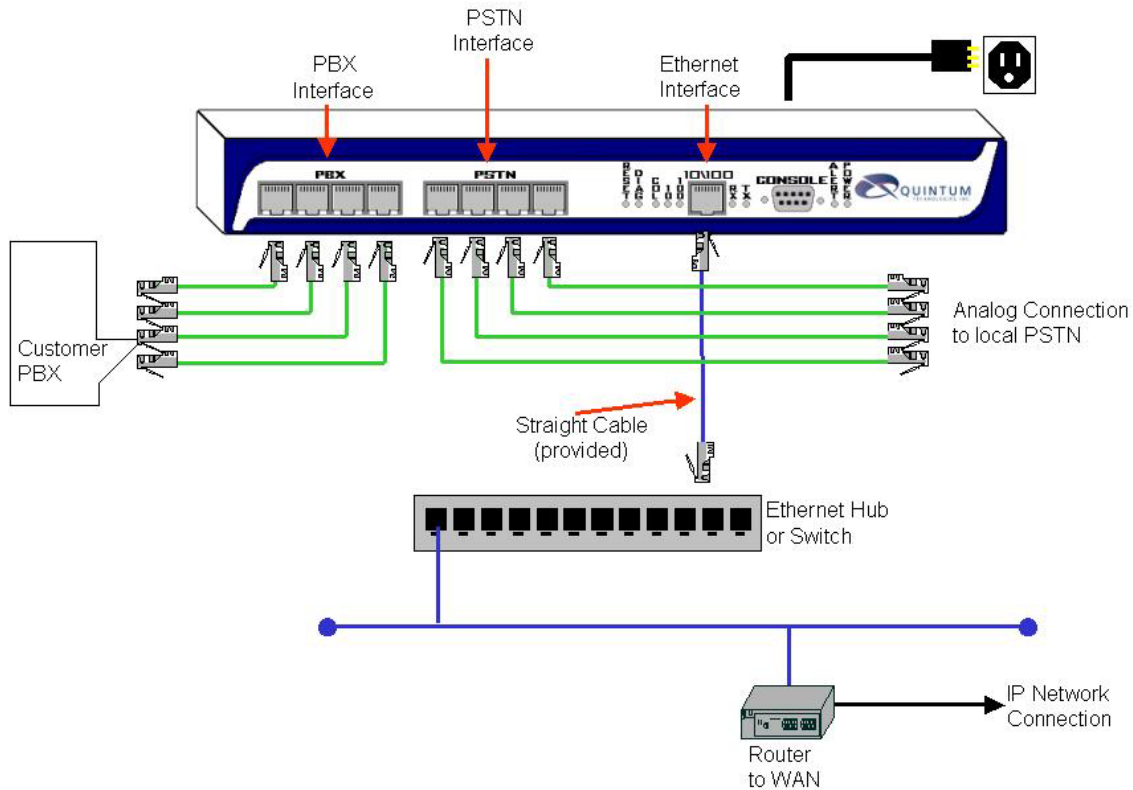


FIGURE III-9: ANALOG TENOR CONNECTIONS

- Connect the analog lines from the PBX to the Tenor's PBX interface using RJ45 to RJ45 or RJ11 to RJ11 straight cables.
- Connect the Tenor's PSTN interfaces to the analog lines from the PSTN using either an RJ45 to RJ45 or RJ11 to RJ 11 straight cables.
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using a RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.

NOTE

¹ In some instances, the connection to the PBX or PSTN may require a cross-over cable.

Keep in mind that the Enterprise Application and connection is used in the Service Provider application at the Enterprise location.

Service Provider Application:

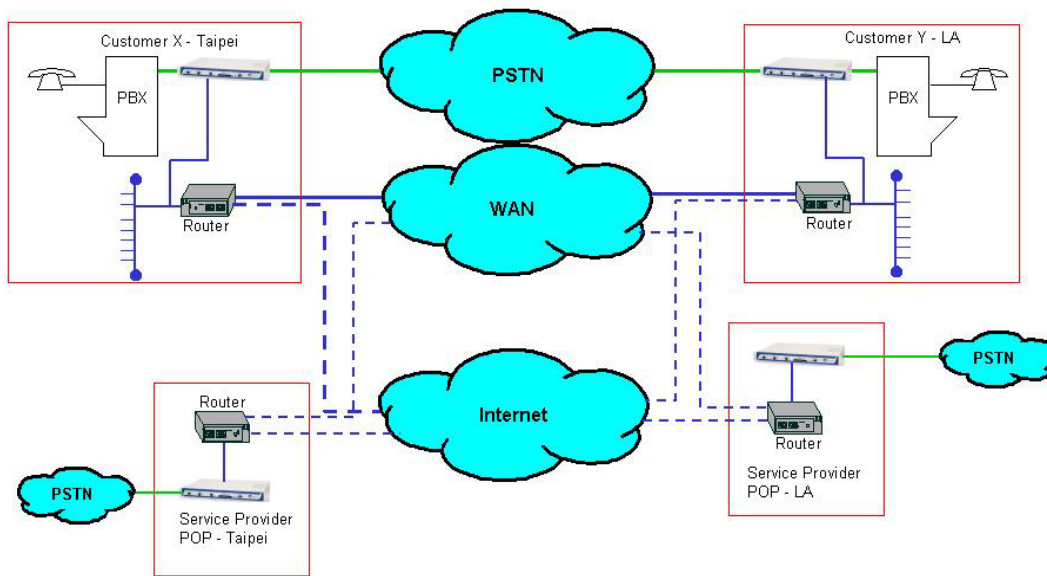


FIGURE III-10: SERVICE PROVIDER APPLICATION

NOTE

For this application, the connections at the customer location will be identical to the Enterprise application.

There is no connection to the PBX interface typically.

TASQ™ is not typically used for this application.

Digital Tenor:

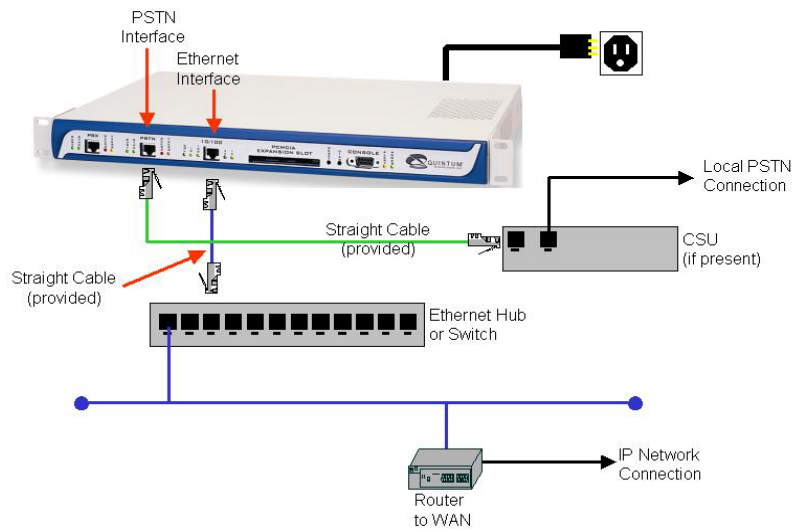


FIGURE III-11: DIGITAL TENOR CONNECTIONS - SERVICE PROVIDER POP

The connection shown for this application is for the Service Provider's POP.

- Connect the Tenor's PSTN interface to either the CSU (if provided) or directly to the PSTN's T1/E1 line with an RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using an RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.

Analog Tenor Connections:

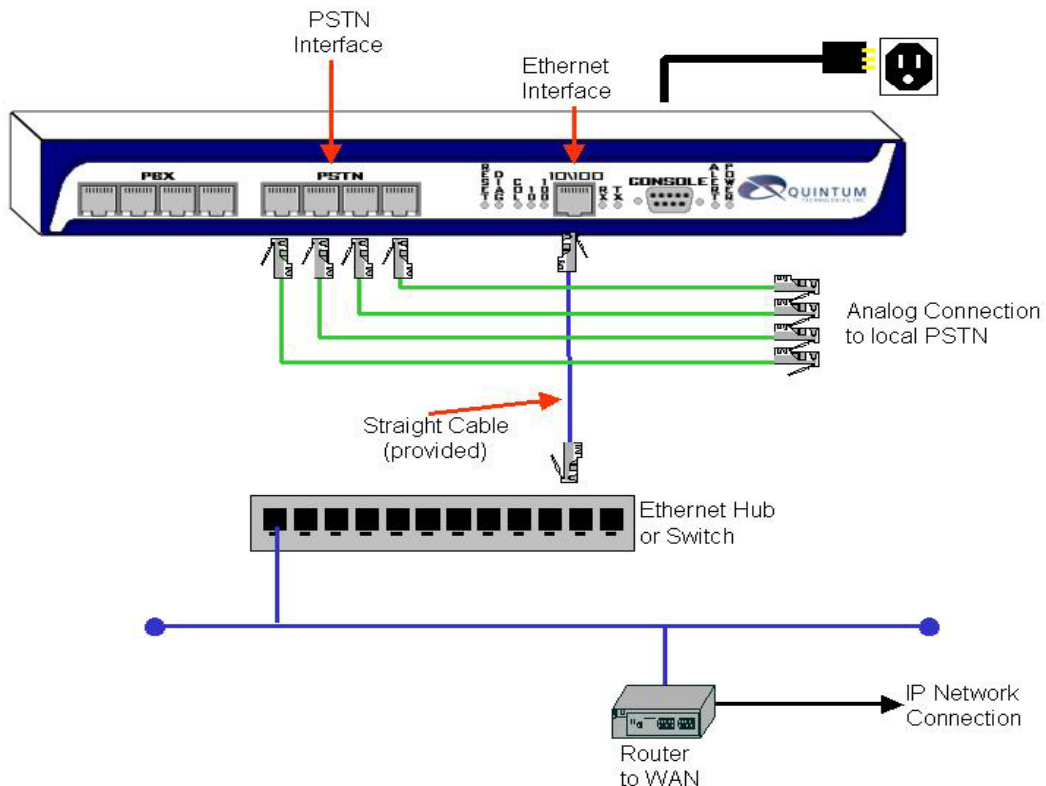


FIGURE III-12: ANALOG TENOR CONNECTIONS - SERVICE PROVIDER POP

- Connect the Tenor's PSTN interfaces to the analog lines from the PSTN using either RJ45 to RJ45 straight cables or RJ11 to RJ11 cables.
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using an RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.

Calling Card Application:

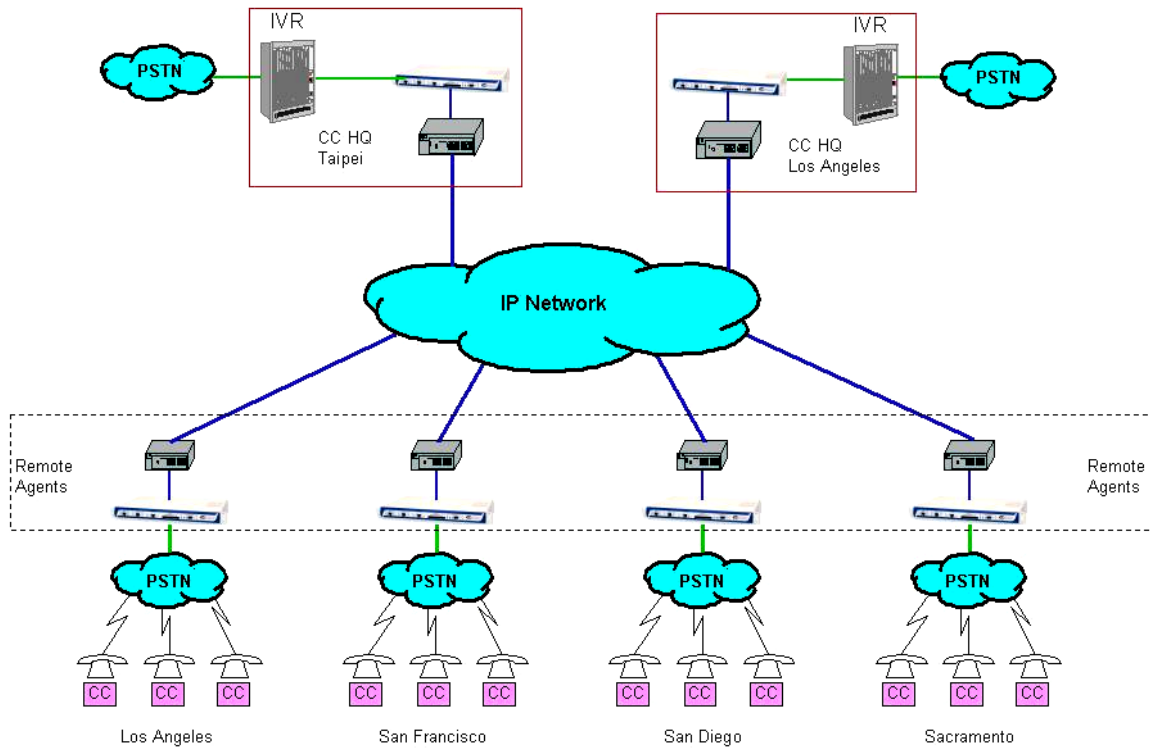


FIGURE III-13: CALLING CARD APPLICATION

NOTE

TASQ™ is not typically used for this application.

NOTE

The connections used for the remote agent Tenors are the same as those used for the Service Provider POP Tenors.

Digital Tenor Connections at IVR Location

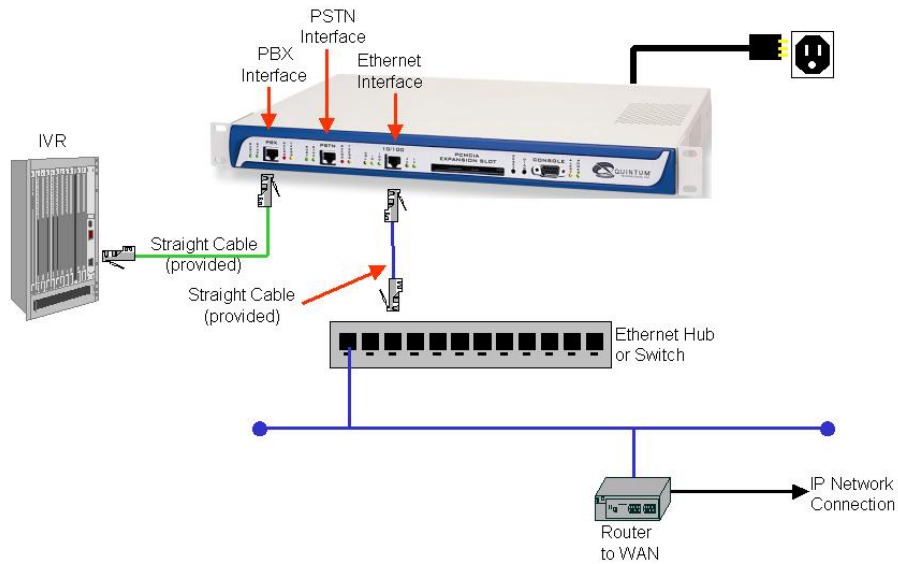


FIGURE III-14: DIGITAL TENOR CONNECTION - CALLING CARD APPLICATION: IVR LOCATION

- Connect the Tenor's PBX interface to IVRs T1/E1 line with an RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using a RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.

Analog Tenor Connections at IVR Location

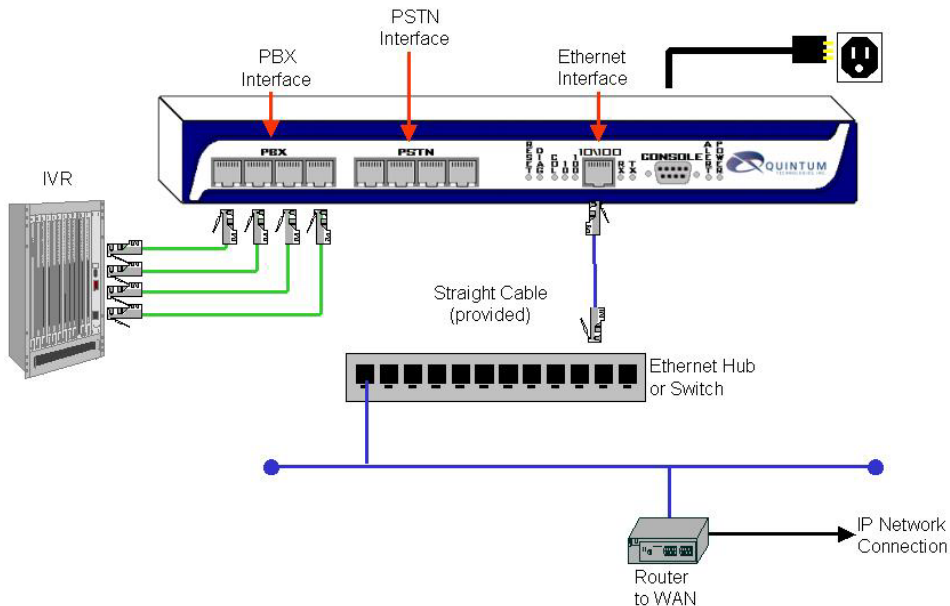


FIGURE III-15: ANALOG TENOR CONNECTIONS - CALLING CARD APPLICATION: IVR LOCATION

- Connect the Tenor's PBX interfaces to the analog lines from the IVR using either RJ45 to RJ45 straight cables or RJ11 to RJ11 cables.
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using a RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.

Calling Card Application (continued)

Remote Agent Location

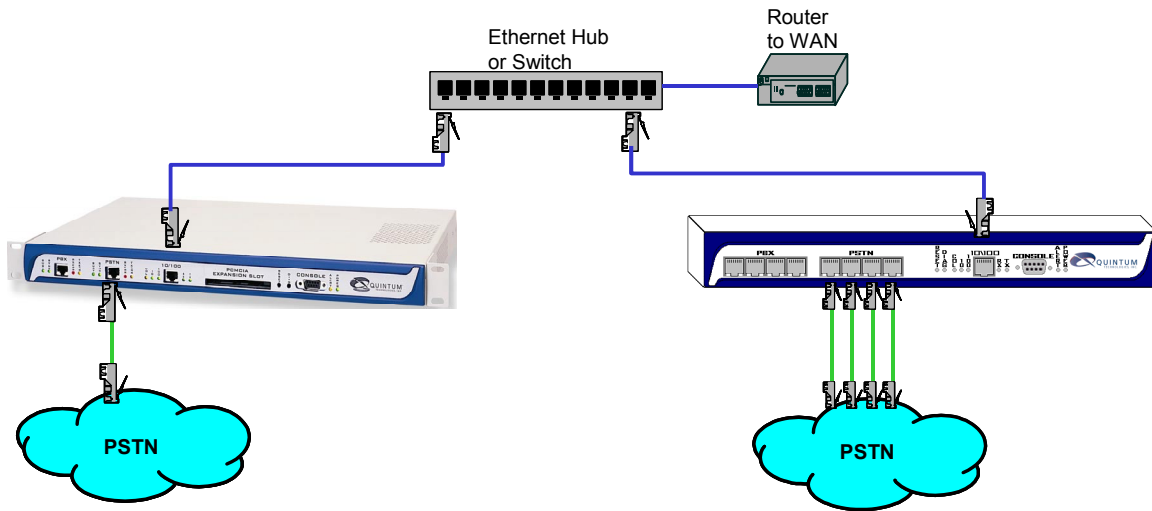


FIGURE III-16: TENOR CONNECTIONS - CALLING CARD APPLICATION: REMOTE AGENT LOCATION

- **Digital Tenor:** Connect the Tenor's PSTN interface to the CSU, if present, or directly to the PSTN using a RJ45 to RJ45 straight cable (provided).
- **Analog Tenor:** Connect the Tenor's PSTN interfaces to the analog lines from the PSTN using either RJ45 to RJ45 straight cables or RJ11 to RJ11 cables.
- Connect the Tenor's Ethernet 10/100 interface to the IP network, typically to an Ethernet hub or switch using a RJ45 to RJ45 straight cable (provided).
- Connect the Tenor's power cord to the back of the Tenor and to a standard electrical outlet.